

**PRINTER RUSH**  
(PTO ASSISTANCE)

Application : 10/785609

Examiner : Jeanclaude

GAU : 2819

From : PAP

Location : IDC FMF FDC

Date : 5/3/05

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DOC CODE	DOC DATE	MISCELLANEOUS
<input type="checkbox"/> 1449		<input type="checkbox"/> Continuing Data
<input type="checkbox"/> IDS		<input type="checkbox"/> Foreign Priority
<input type="checkbox"/> CLM		<input type="checkbox"/> Document Legibility
<input type="checkbox"/> IIFW		<input type="checkbox"/> Fees
<input type="checkbox"/> SRFW		<input type="checkbox"/> Other
<input type="checkbox"/> DRW		
<input type="checkbox"/> OATH		
<input type="checkbox"/> 312		
<input checked="" type="checkbox"/> SPEC	<u>2/23/2004</u>	

[RUSH] MESSAGE: Page 18, last line on the page  
starting with "All other frequency --" does not end  
with a period. Is there missing data? Please advise.

Thank you

[XRUSH] RESPONSE: Corrected

INITIALS: RS

NOTE: This form will be included as part of the official USPTO record, with the Response document coded as XRUSH.

REV 10/04

10/785,609

Since it is desirable for the final output of the RFDAC to be limited in bandwidth in order for its output to fit within its assigned frequency allocation, a termination circuit 60 is used to limit the frequencies passed to the final components in the transmitter system. For optimal performance, the termination circuit pass band may obey the bounds set forth by at least one of the following relationships. These are set forth in Table 1.

Table 1

- 1)  $N*LO+Z*(Fs/2)$
- 2)  $N*LO-Z*(Fs/2)$
- 3)  $[N*LO+Z*(Fs/2)]+[Z*(Fs/2)+Z*Fs]$
- 4)  $[N*LO-Z*(Fs/2)]-[Z*(Fs/2)-Z*Fs]$

where the LO is the local oscillator 24 signal, and Fs is the final sampling clock frequency 82.

The above relations are valid if  $Fs=LO/M$  and  $LO=Fs*M$ , the function of circuit 40 of RFDAC embodiments 10, 100, 200, 300, 800, and 900. Lastly, N, M, and Z are non-zero, independent integers.

A practical application of this bounding is shown in Graph 310. Figure 15, Graph 310 is an expanded view of Figure 14, Graph 220 with like frequency components indicated by like reference numbers. In Figure 7, the first relationship is utilized to set the termination circuit bandwidth 330,  $N*LO+Z*(Fs/2)$ , with  $N=1$ ,  $Z=1$ ,  $M=20$ , and the  $LO=2400$  MHz. In this case, signal 260 is passed, and signals 270, 280, and 290 are rejected. All other frequency relationships discussed above are equally valid, though not illustrated.

RS  
6/4/05